The Meanings of Genetics

Accounts of Biotechnology in the work of Habermas, Baudrillard and Derrida.

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Abstract: There can be little doubt that, like the Darwinian revolution in evolutionary thought, modern developments in and perceptions of genetics will have an impact upon a variety of intellectual disciplines in terms of issues, form and content. How are humanities disciplinhes to help themselves and others to re-image and understnad the cultural, social and other possibilities that genetics presents beyond the realm of action and the ethical? This paper looks at discussions of genetics provided by Jurgen Habermas, Jean Baudrillard and Jacque derrida, who attempted to explore what light the advent of genetic research and biotechnology cast on Western culture and what effect they may have on the meanings of being human in the future. It will be discussed how knowledge and practices arising out of genetics, as well as the images of genetics proliferated in the mass media, informed the thought of these three authors and their critique of Western society.

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THE RECENT RAPID and successful development of genetic research has intensified the debate about its possible outcomes and might pose a number of questions to Humanities disciplines. Apart from being an ethical challenge, the genetics revolution has a potential for changing basic understandings of what it is to be human, relationships with others, cultures and world views within and hence to have a cultural impact similar, for instance, to that of the Copernican revolution or evolutionary theory. James Watson, one of the discoverers of the DNA structure, has observed in one of his characteristically eloquent speeches that the objective of genetics is to respond to human needs, and '[t]o try and give it more meaning than it deserves in some quasi-mystical way is for Stephen Spielberg or somebody like that. It's just plain aura, up in the sky' (quoted in Fukuyama, 2002: 105). A vast and growing literature examining the ethical, cultural and social implications of genetic research and biotechnology suggests that 'non-scientific' academic community does not share Watson's pragmatic approach to genetics and refuses to leave the discussion of the meanings of genetics to cinematography.

In this paper we would like to look at discussions of genetics provided by Jurgen Habermas, Jean Baudrillard and Jacque Derrida, who attempted to explore what light the advent of genetic research and biotechnology cast on our culture and human self-perception and what effect they may have on the meanings of being human in the future. The paper will discuss how knowledge and practices arising out of genetics, as well as the images of genetics proliferated in the mass media have informed the thought of these three authors and their critique of capitalism and Western society.

Habermas's principal writings on genetic technology are included in *The Postnational Constellation* and in *The Future of Human Nature*. While the former draws together three short essays on human cloning, the latter ('The Debate on the Ethical Self-Understanding of the Species') is a substantial essay, primarily concerned with preimplantation genetic diagnosis (PGD) and eugenetics. Habermas's disquiet over the potential for genetic control of human reproduction centres upon the impact that it will have upon the communicative and ethical relationships that serve to integrate human society. Habermas's worries are articulated on four more or less distinct levels: the self-understanding of the individual; the intersubjective relationship between individuals; the status of the individual in law; the ethical self-understanding of the species as a whole.

Before turning to the substance of Habermas's arguments, their theoretical background, in terms of both ethical theory and social theory, may be usefully outlined. Habermas's arguments rest ultimately upon the models of discourse ethics that he developed in the 1970s and '80s. Discourse ethics is primarily concerned with the procedures through which normative claims are justified. Ideally, justification occurs through the free and open discussion of all parties who are affected by the decision. In part,

Habermas's concern over genetic technology lies in the fact that it reduces certain individuals to means, and thus inhibits their participation in the discussion and justification of norms.

In terms of social theory, Habermas evokes his model of late capitalism. Habermas characterises late capitalism in terms of what he calls the 'colonisation of the lifeworld'. The lifeworld is the bundle of culturally required resources, knowledge and competences, through which the competent social agent makes sense of their social and physical environment, and orientates their action to other human beings and to the material world. A simple society may be held together through nothing more than the lifeworld competences of its members, for such simple societies allow of only a limited number of events and experiences, and the life world will readily contain resources to make sense of all of those events, and thus allow meaningful reactions to them. As society becomes more complex, individuals enter into ever more various and complex interactions, and encounter ever more diverse experiences. The lifeworld ceases to be adequate to sustain the burden of social integration. A successful society will develop abstract rules to govern the behaviour of individuals in unfamiliar or complex situations. Crucially, such rules will allow the individual to act without necessarily having fully to understand the situation within which they find themselves. The system as such does not generate the means to question it own goals. Those critical resources exist only in the lifeworld. Interactions that should be meaningfully governed by the lifeworld are thus increasingly controlled by the processes of economic exchange and political administration that are no longer amenable to discursive or meaningful questioning. This is the colonisation of the lifeworld. In terms of genetics, Habermas will suggest that a technology that is increasingly driven by purely economic goals (principally of profit maximisation) or the development of the intrinsic logic of the science is increasingly shut off from ethical challenges.

Cloning or PGD presupposes that the physical and possibly intellectual or emotional attributes of a future person are chosen prior to their conception and birth. The future child is thus part of the parents' life project, which they are given the freedom to pursue as best they can (Habermas 2003: 60). The defenders of such liberal eugenics would argue that such genetic interventions are continuous with the educational interventions that parents make in their child's development, and as such posed no new ethical problems.

Habermas's initial concern can be identified through reference to the colonisation of the lifeworld. If the genetic services that are made available are those that are profitable (or that facilitate the working through of scientific research projects (Habermas 1991: 166-9), then they are governed by the system, and not by the lifeworld. There is no guarantee that such services will meet real needs (for example, in terms of health care), nor indeed that they will be chosen on rationally defensible grounds. The subsequent arguments that Habermas offers may be seen to be substantiating this claim that genetics is breaking away from (or indeed break asunder) the lifeworld, by detailing precise points of tension.

The problem of self-understanding is one such point of tension. Habermas identifies three elements that characterise the growth and social development of a child prior to the possibility of genetic intervention. Firstly, one's genetic inherence will have been a matter of 'fate' (Habermas 1991: 163). Secondly, this fate is manifest in a body that is one's being – which is to say that in developing physical autonomy, one comes to take one's body for granted. Finally, one's social and psychological development occurs through the medium of language, and the core capacity that one develops is that of being able to enter into communication with others, to present one's own viewpoint, and to reject or challenge the view point of others (Habermas 2003: 62-3). Genetic modification undermines these three elements.

If one has been genetically modified, then one's genetic inherence will be to a greater or lesser extent causally determined. Similarly, the distinction between the 'grown' and the 'made' breaks down. The human being can be assessed only in terms of its effectiveness and efficiency in realising its pre-given and unquestionable end, and not in terms of its moral existence as an end in itself.

This leads to the second and third elements. Again, the categorical distinctions contained within lifeworlds as they now exist are seen to be inadequate for the self-understanding of the genetically modified person. Habermas suggests that any such individual must look upon their own physical and mental capacities instrumentally. They must understand themselves as being made, not grown, as being causally determinate and not fateful. The purpose for which they exist has been given by another, and in Habermas's phrase, they 'may interpret, but never revise or undo [their designer's] intention' (Ibid.: 64). Here, then, is the crucial difference between genetic modification and education. Education will give the child the capacity to say no to the very goals that the parent is attempting to encourage in it. Because genetic modification is a causal and instrumental process, it offers no resources for challenging the designer's goals morally. The very ground for one's existence is an instrumentally manufactured body, not a fatefully given one.

The second level of Habermas's argument, the question of the impact that genetic technology would have upon the interaction between individuals, is

already anticipated in noting the impact that genetics has upon socialisation. The interaction between the child and its parents, if those parents are its designers, necessarily falls short of the ideals of meaningful interaction that are presupposed in socialisation. The child cannot say 'no' to the parents' intentions. The child has thus been objectified – its right to enter into communicative action and moral discourse undermined – rather than engaged with as an equal. Further, the relationship between the geneticist as physician and the child as patient is similarly compromised. Here Habermas makes an important distinction between therapeutic genetic interventions and genetic enhancement. The former implies that the role of the physician is to remove or remedy a potential disability. In terms of the communicative relationship between the physician and the (as yet unborn) patient, an assumption is being made, by the physician, that the future person would, unequivocally, agree to the genetic therapy. Thus, the physician relates to the patient as a subject – as a second person with whom they are in dialogue. In the case of genetic enhancement, however, the physician cannot make that same assumption. There is no guarantee that the future person would agree to the enhancement. The communicative relationship is thus broken, and the patient is treated as an objectified third person that can be manipulated, and not as a second person to be engaged.

Habermas suggests that genetic modification inhibits not merely the patients interaction with their designers, but also with all other human beings. The point here is that genetic enhancement, by partially objectifying the human agent, may compromise their ability to enter freely into discussion, precisely because the enhancement may have curtailed their capacity to reflect critically and openly upon specific purposes and norms, or more generally, through the inappropriateness of the existing categorical structures of the lifeworld for articulating their position. Genetic modification thereby becomes a new form of the systematic distortion of communication that has, under various guises, concerned Habermas through out his career. Genetic modification is thus presented by Habermas as a micro-political complement to the overarching processes of colonisation. For Habermas, there is a danger that the genetically modified person is then (explicitly or implicitly) denied the dignity that is entailed in mutual recognition and respect for autonomy (Ibid.: 34).

The phenomena of systematic distortion of communication leads to the third level of Habermas's argument: the legal status of those who have been genetically modified. Habermas poses the basic problem of whether or not a constitutional democracy within a pluralist society can formulate laws that recognise the rights of genetic modification (Ibid.: 22). Habermas's approach to constitutional democracy, that is developed at length in *Between Facts and Norms*, follows on from his notion of discourse ethics. Ideally a law is drawn up and agreed to only by the people who will be subject to it. The liberal eugenicist may then argue that the geneticist (and the prospective parent) must have the right to pursue their goals (of a desirable child). Habermas replies that this entails an inherent contradiction. The very process of genetic enhancement imposes a goal upon the future child. The freedom of the designer is not merely in conflict with that of the child, but violates the liberal freedoms of the child. Either the child does not yet exist, in which case validation of the law presupposes a highly dubious consent; or the capacity of the existing child to participate is compromised by its very genetic modification. Genetic enhancement cannot then be legally validated within the framework of a democratic constitution, precisely because those most directly affected by the process cannot give their free consent to the law.

Habermas's final level is that of the ethical self-understanding of the species – and thus the theme signalled in the title of the essay. Habermas suggests that the ethics of all global civilisations are underpinned by broad conceptions of human autonomy, responsibility and dignity that were established in the axial period (8^{th} to 3^{rd} centuries BCE) in the cultures of China, India, Israel and Greece. It is precisely this ethics that is being disrupted by genetic modification, not least in what Habermas sees as the instrumentalisation of the 'preperson' (Ibid.: 39 & 71). The understanding of what it is to be human, and thus of what it is to be part of humanity and crucially to participate in the historical and cultural development of humanity is challenged by genetic technology. For Habermas, societies since the axial age have begun to institute rational mechanisms that allows them to adapt to the problems of social change through discursive means (manifest as much in the development of new science and technology as in grown sophistication in political and moral debate) (see Habermas 1991: 228). Genetic technology poses a further threat, precisely insofar as it has the potential to reduce human development and adaptation to one of instrumental manipulation, rather than increased learning capacity. Habermas is thus suggesting a nightmare scenario, where genetic technologists attempt to anticipate the capacities that humans will need in the future, and to engineer them into the next generation, rather than providing that generation with the cultural competences to respond to problems on their own terms. The designer imposes the child's purpose and meaning upon it, rather than allowing it to discover that purpose for itself.

An interesting perspective on the meanings of contemporary genetics in the history of humanity is

provided by one of the most famous and controversial critical thinkers, Jean Baudrillard, in the context of his discussion of cloning. In his essay 'The Final Solution' he construes scientific attempts at cloning and particularly at human cloning as a technique to make humans immortal, which, according to Baudrillard, 'is our ultimate fantasy, a fantasy that is also at work in all of our modern sciences and technologies' (Baudrillard 2000: 3).

Discussions of contemporary technology and particularly the way subjects experience the influence of technology on their everyday life represent one of the main interests of Baudrillard throughout his work. He has critiqued both the narratives of scientific progress and apocalyptic visions of modern technology (Lane 2000: 28). In 'The Final Solution' there are also hints of his trying to demonstrate the ambiguity of the dangers and benefits of technological development. Thus, cloning, as well as other reproductive technologies, such as artificial insemination, in Baudrillard's view, crown the sexual revolution, which started with sexual liberation and the dissociation of sex from procreation through contraception and is now going to end with the dissociation of procreation from sex. According to the author, 'it is the same ambiguity that troubles science': 'the calculated benefits both of sexual liberation and of the scientific revolution are inextricably bound up with their negative countereffects' (Baudrillard 2000: 10-1).

He argues that what the development of cloning techniques tells us about the state of 'Western' humanity is that it is tired of its diversity and craves to reproduce sameness. In Baudrillard's view, this is involution, a return into the state of continuity and immortality that the first creations of nature lived in. This process will eliminate diversity produced by sexual reproduction and hence, the author suggests that 'we must struggle against the possibility that we will not die', as 'at the slightest hesitation in the fight for death', which for Baudrillard also means 'a fight for division, for sex, for alterity', ' living beings become once again indivisible, identical to one another – and immortal' (Ibid.: 5-6). This technological development may signify that the 'progress' of science follows not a line, but a curve, which at the same time, in Baudrillard's view, may be 'the secret destination of nature' (Ibid.: 9), as humans have a nostalgia for the prior forms from whom they differentiated in the process of evolution and 'in cloning – this collective fantasy of a return to a non-individuated existence... - we see the very form of a repentance of the living toward the unliving' and 'a crucial revision of the whole process of evolution and especially that of the human race – a species unable to brave its own diversity, its own complexity, its own radical difference, its own alterity' (Ibid.: 14-5).

He argues that this will lead to 'the final solution', the destruction of the humans, the first species who will disappear due to an unnatural cause. He doubts that it will be possible to call the species that will succeed in reaching immortality human beings, though he also has a more optimistic feeling that it may as well be a test for human nature: we should take the artificialization of living beings as far as possible and 'if we discover that not everything can be cloned, simulated, programmed, genetically and neurologically managed, then 'whatever survives' could truly be called "human": some inalienable and indestructible human quality could finally be identified'. Though, there is always the risk that nothing will survive and hence 'the human will be permanently eradicated' (Ibid.: 15-6).

What provides a context for Baudrillard's discussion of cloning is his notions of simulation and the hyperreal developed in his previous work. He argues that there are three levels of imitation of the real, or simulation: simulations of the first order are mere copies of reality, simulations of the second level are such perfect copies that they blur the boundaries between the copy and the real. Finally, third-order simulations transcend these boundaries completely and represent a new reality in its own right, or what Baudrillard calls the hyperreal (Lane 2000: 30). His favorite examples of the hyperreal are the virtual reality generated by computers and by the mass media. The idea of the hyperreal is taken to its extreme in his essays about the Gulf War published in English under the title *The Gulf War Did not Take Place*, where the author argues that this was a virtual war, or an information war which was developing according to a preprogrammed scenario (Baudrillard 1995).

In 'The Final Solution' Baudrillard draws a picture of the human future where death, like sex and thought, will become a useless function and will be turned into virtual reality with people paying for 'cyberdeath' and warns against the eradication of death as a 'symbolic event' (Baudrillard 2000: 11) with the advance of human cloning. This technique, according to the author, is a sign of humanity sliding 'not just into the inhuman but into something that is neither human not inhuman: namely, the genetic simulation of life' (Ibid.: 22-3). In this respect he contrasts 'traditional humanism' of the Enlightenment, based on the qualities and natural virtues of men with contemporary humanism, which 'is affiliated more and more with the preservation of the individual and of humankind as a genetically defined entity' (Ibid.: 21). In this situation, according to Baudrillard, humans stop their existence as moral and sovereign beings, as they no longer define themselves in terms of transcendence and liberty, but against other species. The 'genetic' definition of the human that they are left with Baudrillard also

finds very problematic, as humans share 98% of their DNA with apes and 90% with mice and have over 90% of DNA which are useless.

Baudrillard suggests that the argument that the clone will still differ from the original, as they will always be differentiated by culture is not valid, as, in his view, genetic cloning is secondary to cultural cloning, which turns individuals into mere copies of each other produced through the system of schooling, mass media and other agents of communication (Ibid.: 25), all part of 'a project to reconstruct a homogenous and uniformly consistent universe – that unfolds within a technological and mechanical medium... where we are in the process of building a perfect clone, an identical copy of our world' (Ibid.: 8). Baudrillard's discussion of cloning may be considered in the context of his theorising about the role of media in communication, one of the main topics of his scholarship. When writing about students' uprising in France in 1968 in his book *For a Critique of the Political Economy of the Sign* he argued that the role of the media in portraying these events was to offer a pre-existing 'formula' of the revolution which can be reproduced degrading the complexity of what was going on on the street and preventing the audience from giving a meaningful response (Baudrillard 1981: 170-6). Similarly, in 'The Final Solution' he maintains that 'the biological conception of the genome and of genetic cloning' was only made possible by 'the mental cloning', or 'the matrix of acquired traits that, today, clones us culturally under the sign of monothought', which annulated all the innate differences (Baudrillard 2000: 25).

According to the author, this has serious implications for the ethical decisions to be made in respect to prescribing limits on cloning and the rights of the individual regarding scientific and technological experimentation. Baudrillard dismisses ethics committees dealing with such issues as useless, since it is our culture itself 'that works most efficiently in the direction of undifferentiation, of human Xerox copies, and of monothought' (Ibid.: 26).

Finally, the whole struggle for immortality is described as a purely Western condition, as, according to Baudrillard, it is Westerners that invented the very distinction between the 'human' and the 'inhuman' and are now trying to eliminate it not by reconciling the two but by technological intervention (Ibid.: 24). It is noteworthy that contrasting Western and non-Western societies is also found in Baudrillard's previous work, where the latter also often lack contextualization (Lane 2000: 47). In 'The Final Solution' Baudrillard argues that the West is trying to impose its 'thoroughly modern' and 'thoroughly rational' definition of the human upon the rest of the world (Baudrillard 2000: 24).

The question of the possible affect of genetic research on the way human nature is defined legally is addressed by Jacque Derrida in his contribution to the colloquium on 'Analysis of the Human Genome: Freedoms and Responsibilities' organized by Association Descartes in December 1992, i.e. at the very beginning of the Human Genome project. Derrida's interventions were recently published in English under the title 'The Aforementioned So-called Human Genome'. Derrida has two feelings about genetic advances. On the one hand he is concerned about the possibility of them resulting in eugenic practices, with identification of the super-human and the sub-human, but on the other hand, he gets a 'relativizing' and 'demystifying' feeling based on the assumption that to map the genome is not yet the ability to manipulate it. Derrida is also hopeful that the relevant scientists and decision-makers will 'have enough historical memory' to take legislative precautions against the 'negative eugenics' (Derrida 2002: 209). Quite apart from that, Derrida appreciates the possibilities that genetics opens for predictive and therapeutic medicine (Ibid.: 210). These two feelings, according to Derrida, 'are both equally legitimate and thus also equally unfounded and equally inappropriate', but 'as inadequate and inappropriate as they may be, they warn us; they give us contradictory signals to which we must neither renounce nor remain blind' (Ibid.: 210).

Describing his first, rather negative feeling about genetic advances, the philosopher argues that genetics has led us to this 'unique moment in the history of humanity where the question, *what is man?* could no longer wait as it seems to have done formerly, considering the time and patience of theological or metaphysical speculations'. Today it is 'taking on, here, now, a terribly concrete and urgent form at an infinitely accelerated rate in the very place where decision about the processing of the aforementioned so-called *human genome* could no longer wait' (Ibid.: 209). What Derrida appears to be concerned about here is that mapping the human genome will generate new legislation which will force us to provide a definition of the human based upon a knowledge of her 'norms'. This is something that the philosopher would not want to happen because this way humans would not be defined as beings capable of making a responsible decision (Ibid.: 202). Derrida does not want to oppose scientific research by any means and argues that '*it is always better to know than not to know*' (Ibid. 212-3, italics original), however he observes that due to the not so distant history of eugenics society cannot help being cautious about genetic advances. Speaking of his first 'apocalyptic' feeling regarding genetics he suggests that we are now running 'the risk of new crimes being committed against humanity and not only ... against millions of human

beings as was the case, but a crime such that a sorcerer's apprentice who was very cunning, the author of potential genetic manipulations, might in the future commit or supply the means for committing - in the name of science, of techno-science – against man, against the very humanity of man, no longer against millions of representatives of real humanity but against the essence-itself of humanity' (Ibid. 207-8). Derrida portrays a biotechnological disaster evolving according to a 'Frankenstein science' type of scenario, which is not unfamiliar to the public imagination and has been employed widely in the cinematography (Turney 1998).

Finally, Derrida is concerned about the fact that it is mainly the rich, industrialized states that will be able to benefit from genetic advances and that the laws that will eventually be set up regarding policies and practices arising out of genetic research will be dominated by concepts stemming from more powerful nation-states (Ibid. :205).

Conclusions

What generalisations could be made on the basis of our analysis? It is certainly noteworthy that genetics attracted the attention of such prominent theorists, who practically became public figures. All three authors have a well articulated left-wing political stance and see themselves as 'responsible' intellectuals whose duty it is to expose oppressive forces in society. Though none of them is either technophobic or naively 'anti-science' they are concerned about discriminatory practices that genetic research may generate. All three focus mainly on biotechnology rather than on the 'pure' science of genetics and base their analysis almost entirely upon the images of technology and practices arising out of genetics circulated in the mass media and public discourse. It appears that Habermas, Derrida and Baudrillard perceive genetics as too much of a problematic issue if not a threat to engage with the knowledge of genetics in a more rigorous way.

However, some accounts stemming from the knowledge of genetics, such as that of genetic determinism, did find way into their discussion. Thus, though Habermas claims that he does not believe in genetic determinism, his account of genetic engineering can be interpreted as such. Derrida is ambiguous about it, but one of his feelings about genetics research is that it may force us to define what it means to be human which no previous knowledge pushed us to do. As far as Badrillard is concerned, on the contrary, we would suggest that in his rather unconventional way he problematises the concept of genetic determinism more than the other two authors. Though he does not discuss in any detail the science standing behind cloning, he argues that genetic cloning was only made possible by 'cultural' cloning promoted by the Western school system and the mass media. Thus, for him the ideas and tasks developed in genetics are secondary to cultural norms and practices.

None of the authors discussed how genetics may potentially enrich culture. The only positive impact that Habermas and Derrida mention is that of therapeutic medicine. The burden of Habermas's argument may be seen to fall on the disruptive impact that genetic technology will have upon the lifeworld and the communicative and hermeneutic resources that exist within the lifeworld. Against Habermas it may be suggested that the lifeworld has responded to technological challenges before (and Habermas himself notes the importance of the Copernican and Darwinian revolutions). One may then ask whether genetic technology will not lead to a revitalisation of the lifeworld, generating new and more subtle categorical distinctions, rather than a simple surrender to instrumentalism and colonisation. Similarly, one can respond to Baudrillard's critique by suggesting that though biotechnology may be easily interpreted as homogenising and reinstating old stereotypes (eg reactions to some research in genetic anthropology, lack of access to IVF treatment for lesbian couples and single parents, as was demonstrated by Sarah Franklin 1993) and there is a danger of this side of biotechnology developing rapidly, however, it also opens possibilities for creating qualitatively new identities and categories which will make culture more diverse and nuanced.

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